ABSTRACT

An electronic price label (ESL) system with automatic assignment of an ESL to an appropriate CBS and timeslot is described. In one aspect, the ESL system automatically assigns a missing ESL to an appropriate CBS and timeslot following a successful find command. After a find command has been transmitted and responded to by the missing ESL, a host computer system has a record of the CBS nearest the ESL and the timeslot that the ESL responded on. The host computer then determines a new timeslot for use by the ESL. The new timeslot is one of the timeslots normally used by the nearest CBS for communication. The host computer may select a timeslot which is currently assigned to fewer ESLs, to allow for even distribution of messages across the timeslots. An assign command is then transmitted to the ESL on the current timeslot, instructing the ESL to change to new timeslot when listening for messages. The host computer system then updates an ESL data file to include the correct CBS and timeslot information. In one aspect of the present invention, the response to the find command may indicate that multiple CBSs are within range of the ESL. In addition to selecting the appropriate timeslot to assign to the ESL, the host computer will also select the appropriate CBS to assign to the ESL.